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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,896	01/14/2000	Masahiko Yamada	Q56529	7640

7590

10/22/2003

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EXAMINER

DASTOORI, MEHRDAD

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/482,896

Applicant(s)

YAMADA, MASAHIKO

Examiner

Mehrdad Dastouri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-99 is/are pending in the application.
- 4a) Of the above claim(s) 22-99 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-21 in Paper No. 6 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. In Lines 10-11 of Claim 1, and Line 12 of Claims 8 and 15, the limitation "the improvement" lacks antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al (EP 0 766 202).

Regarding Claim 1, Ito et al disclose an image processing method for obtaining a processed image from an original image signal representing an original image having a certain picture element density, in which a plurality of intermediate image signals which are different in frequency band are made on the basis of the original image signal (Abstract; Figures 1, 2, 12, 13 and 43; Page 10, Lines 25-31), a plurality of transformed image signals are obtained by carrying out a transformation processing on the

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respective intermediate image signals on the basis of respective transformation functions (Abstract; Figures 1, 2, 12, 13 and 43; Page 10, Lines 31-35), and a processed image signal is obtained from the transformed image signals (Figures 12, 13 and 43, Signal Sporc), wherein the improvement comprises the steps of

defining said transformation functions by determining transformation functions defining parameters for the transformation functions on the basis of the picture element density of the original image (Abstract; Figures 1, 12 and 43, Conversion Means 3; Page 10, Lines 53-59, Page 11, Lines 1-19).

Regarding Claim 2, Ito et al further disclose an image processing method as defined in Claim 1 in which said plurality of intermediate image signals are band-limited signals which are made by carrying out on the original signal a filtering processing by use of filters whose coefficients of filter are determined on the basis of the picture element density of the original image signal, thereby making a plurality of unsharp image signals which are different in frequency response characteristic, and making a plurality of band-limited signals representing the signals in the respective frequency bands of the original image signal on the basis of the unsharp image signals and the original image signal (Abstract; Figures 13-15; Page 10, Lines 41-59, Page 11, Lines 1-36).

Regarding Claim 3, Ito et al further disclose an image processing method as defined in Claim 1 in which said predetermined transformation functions are non-linear functions (Figure 15; Page 10, Lines 53-59, Page 11, Line 1).

Regarding Claim 4, Ito et al further disclose an image processing method as defined in Claim 1 in which said predetermined transformation processing is a frequency enhancement processing (Figures 15 and 16; Page 11, Lines 20-48).

Regarding Claim 5, Ito et al further disclose an image processing method as defined in Claim 1 in which said predetermined transformation processing is a dynamic range compression processing (Figures 13 and 43; Page 19, Lines 33-59, Page 20, Lines 1-41).

Regarding Claim 6, the transformation function defining parameters determined for the original image signal will be inherently stored with the parameters related to the original image signal as a standard procedure implemented in data processing for further processing of the image data.

Regarding Claim 7, Ito et al further disclose an image processing method as defined in Claim 1 in which said step of defining said transformation functions by determining transformation function defining parameters for the transformation functions on the basis of the picture element density of the original image comprises the steps of preparing transformation function defining parameters for at least two reference picture element densities, comparing the picture element density of the original image with the reference picture element densities, and determining the transformation function defining parameters for one of the reference picture element densities closest to the picture element density of the original image as the transformation function defining parameters for the original image signal (Figures 15-27; Page 10, Lines 53-59, Page 11, Lines 1-19).

With regards to Claims 8 and 15, arguments analogous to those presented for Claim 1 are applicable to Claims 8 and 15.

With regards to Claims 9 and 16, arguments analogous to those presented for Claim 2 are applicable to Claims 9 and 16.

With regards to Claims 10 and 17, arguments analogous to those presented for Claim 3 are applicable to Claims 10 and 17.

With regards to Claims 11 and 18, arguments analogous to those presented for Claim 4 are applicable to Claims 11 and 18.

With regards to Claims 12 and 19, arguments analogous to those presented for Claim 5 are applicable to Claims 12 and 19.

With regards to Claims 13 and 20, arguments analogous to those presented for Claim 6 are applicable to Claims 13 and 20.

With regards to Claims 14 and 21, arguments analogous to those presented for Claim 7 are applicable to Claims 14 and 21.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,315,670 to Shapiro et al is cited for digital data compression system including zerotree coefficient coding.

U.S. Patent 5,467,404 to Vuylsteke et al is cited for method and apparatus for contrast enhancement.

U.S. Patent 5,694,447 to Ito is cited for energy subtraction process and method.

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Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438.

The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Customer Service Office whose telephone number is (703) 306-0377.

**MEHRDAD DASTOURI
PRIMARY EXAMINER**

Mehrdad Dastouri

Mehrdad Dastouri
Primary Examiner
Group Art Unit 2623
October 14, 2003